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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Date: February 20, 2004

DAVID KARL BIDNER and  
GOPICHANDRA SURNILLA

Serial No. : 10/064,016

Filed : June 4, 2002

For : METHOD FOR CONTROLLING AN ENGINE TO  
OBTAIN RAPID CATALYST HEATING

Group Art Unit: 8747

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. §§ 1.56, 1.97, and 1.98**

Applicants are submitting this Information Disclosure Statement pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98 to disclose to the U.S. Patent and Trademark Office the patents, publications, applications, and/or other references listed on the enclosed, completed PTO-1449 form(s). The filing of this Information Disclosure Statement should not be construed as a representation that a search has been made or as an admission that the listed references are prior art for this application. Applicants respectfully request that the listed references be expressly considered during prosecution of the application, and that the references be made of record therein and appear among the "references cited" on any patents issuing therefrom.

## CONTENT OF DISCLOSURE

This Information Disclosure Statement includes (1) three pages of PTO-1449 forms, and (2) a legible copy of each reference listed on the forms.

## FOREIGN-LANGUAGE REFERENCES

A concise explanation of the relevance of each listed reference not in the English language follows:

Japanese Patent No. 62-247176: To obtain the max. combustion efficiency of an engine as a whole by allowing the spark plug in each cylinder to be ignition-timing-controlled independently, in the engine equipped with the cylinders for lean combustion and the cylinders for rich combustion.

The first cylinders 11-13 which are operated by the supply of the mixed gas in the vicinity of a theoretical air-fuel ratio and the second cylinder 14 into which the mixed gas in lean state is supplied in the low load operation and which is operated by the supply of the mixed gas in the vicinity of a theoretical air-fuel ratio in the operation other than the low load operation are provided. In such an engine, the spark plugs 51-54 installed onto the respective cylinders 11-14 are connected with a distributor 55, and supplied with the high voltage supplied from an ignition coil 56 controlled by the ignition instruction signal supplied from an ECU 60. Said ECU 60 is installed to allow the first cylinders 11-13 and the second cylinder 14 to perform the ignition timing control independently on the basis of the advance map memorized for the cylinder in each group according to the output of a cylinder discriminating sensor 57.

Japanese Patent No. 7-35016: To provide a uniform burning state for each cylinder group so as to enhance stability of an engine by changing a burning state of each cylinder group in order to improve the burning state of a cylinder group in a poor burning state on the basis of the burning state of each cylinder group.

A control unit 6 reads in a water temperature  $T_F$  on a front bank F side and a water temperature  $T_R$  on a rear bank R side on the basis of signals output from water temperature sensors 4, 5. When a rotation varying ratio  $\Delta T_{An} < \text{an allowable limit value } n1$ , an ignition timing ADV<sub>R</sub> on the rear bank R side is corrected to a delay angle side, thereby increasing an exhaust temperature. When  $\Delta T_{An} \geq n1$ , the ignition timing ADV<sub>R</sub> is corrected to an advance angle side, thus securing stability of an engine. Thereafter, a value obtained by multiplying a difference between the water temperatures  $T_S < T_F$  by a predetermined coefficient is added into the ignition timing ADV<sub>R</sub>, thereby calculating an ignition timing ADV<sub>F</sub> on the front bank F side. Namely, the ignition timing ADV<sub>F</sub> is set toward the advance angle side by a value equivalent to the difference between the water temperatures with respect to the ignition timing ADV<sub>R</sub>.

#### **TIMING OF DISCLOSURE / FEE INFORMATION**

This Information Disclosure Statement is being filed, to the best of the undersigned's knowledge, either (1) before the mailing of a first Office action on the merits, or (2) before the mailing of a first Office action after the filing of a request for continued examination under 37 C.F.R. § 1.114. Therefore, in accordance with 37 C.F.R. § 1.97(b), no fee or statement under 37 C.F.R. § 1.97(e) is required.

Please contact the undersigned with any questions or comments regarding this Information Disclosure Statement.

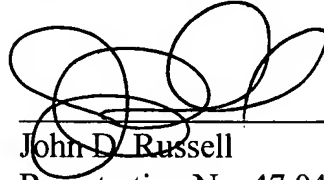
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Erin Filsinger

Respectfully submitted,

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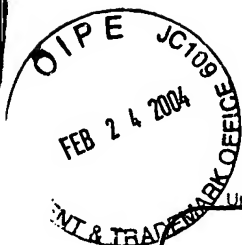
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3747

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>	Application Number	10/064,016	
	Filing Date	June 4, 2002	
	First Named Inventor	David Karl Bidner	
	Art Unit	3747	
	Examiner Name		
Total Number of Pages in This Submission	8+	Attorney Docket Number	FGT 394 (202-0407)

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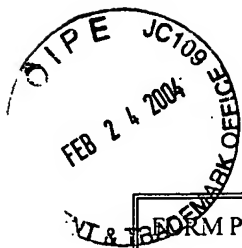
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	John D. Russell, Registration No. 47,048 Kolisch Hartwell, P.C.
Signature	
Date	February 20, 2004

CERTIFICATE OF TRANSMISSION/MAILING			
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Typed or printed name	Erin Filsinger		
Signature		Date	February 20, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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INFORMATION DISCLOSURE CITATION IN AN APPLICATION	DOCKET NUMBER FGT 394 (202-0407)	APPLICATION NUMBER 10/064,016
	APPLICANTS David Karl Bidner and Gopichandra Surnilla	
	FILING DATE June 4, 2002	GROUP ART UNIT 3747

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
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## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
						YES	NO
	1496605	12-30-1977	GB				
	62-247176	10-28-1987	JP				X
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	07-035016	02-03-1995	JP				X

## OTHER DOCUMENTS

EXAMINER	DATE CONSIDERED
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FORM PTO-1449		DOCKET NUMBER FGT 394 (202-0407)		APPLICATION NUMBER 10/064,016		
INFORMATION DISCLOSURE CITATION IN AN APPLICATION		APPLICANTS David Karl Bidner and Gopichandra Surnilla				
		FILING DATE June 4, 2002		GROUP ART UNIT 3747		
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
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	2090331A		GB			
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EXAMINER			DATE CONSIDERED			



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			FILING DATE June 4, 2002		GROUP ART UNIT 3747	
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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO
OTHER DOCUMENTS						
EXAMINER			DATE CONSIDERED			